

Name \_\_\_\_\_

Unit 6 Practice Questions

1. Felix is saving money to buy a bike that costs \$125. He already has \$45.

Write an equation that would represent this word problem.

Find the solution to that equation.

2. Isaac has  $x$  dollars in his savings account. The amount of money triples after he deposits his birthday money. Over the year, he withdraws \$35. This new total is doubles on his next birthday.

Write an expression that represents how much money Isaac currently has.

3. If  $x$  represents the amount of money in Hank's pocket, and Hank has at least \$12 in his pocket, write an inequality that would represent this situation.

Give three possible amounts of money Hank could have in his pocket.

4. Solve for  $c$ :  $4.5c = 27$

5. Write 5 in three different forms.

6. Graph the inequality:  $x > 5$

7. Graph the inequality  $x \leq -5$

8. A car is travelling at a steady speed. The table shows the distance (d) a car will travel in (t) hours.

Distance (d)	Time (t)
120	2
300	5
420	7
600	10

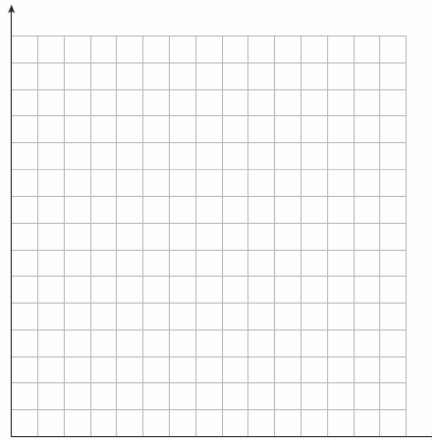
Write an equation that could be used to represent the relationship between the distance and the time.

9. Glen drove his car 40 miles per hour. He wants to represent the relationship between the distance he travelled, d, and the amount of time he travelled, t. Finish the chart for this relationship.

Distance (d)	Time (t)
2	
3	
4	
5	

Write an equation to represent this relationship.

Graph the relationship.



10. Jerome bought 4 t-shirts for \$24. Write an equation to represent this purchase using a variable to represent the price of one t-shirt.

Solve the equation to find the price of one t-shirt.

11. Consider the inequality:  $x + 4 > 9$

Using the data set below, circle all possible solutions that are listed.

{ 7, 2, 6, 5, 1, 3, 8, 9 }

12. On Wednesday nights, children at Joe's burgers who are under 8 years old eat for free. All other customers have to pay regular price.

Using  $x$  as the age of the customer, write an inequality that represents the children who eat for free on Wednesday nights.

Graph that inequality.

13. Given the inequality  $3x - 2 < 13$ , and the data set below:

$\{-12, -6, -5, 0, 2, 4, 6, 8, 9, 12\}$

Make two separate lists of the numbers that could be a solution for the inequality and the numbers that are not solutions to the inequality.

Solutions of $3x - 2 < 13$	Not solutions of $3x - 2 < 13$